

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/005391

International filing date (day/month/year)
19.05.2004

Priority date (day/month/year)
02.07.2003

International Patent Classification (IPC) or both national classification and IPC
G01F1/704, G01N27/414, G01N27/26, G01N33/15, G01N33/18, G01N33/02

Applicant
SICPA HOLDING S.A.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized Officer

Klein, M-O

Telephone No. +49 89 2399-2736



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/005391

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/005391

Box No. II Priority

1. ☒ The following document has not been furnished:
- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
 - ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).
- Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|----------|
| Novelty (N) | Yes: Claims | 4-8 |
| | No: Claims | 1-3,9-17 |
| Inventive step (IS) | Yes: Claims | 4-9 |
| | No: Claims | 1-3,9-17 |
| Industrial applicability (IA) | Yes: Claims | 1-17 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Reference is made to the following documents:

- D1: SCHOELLER D A ET AL: 'TOTAL BODY WATER MEASUREMENT IN HUMANS WITH ^{18}O AND ^2H LABELED WATER'
- D2: DE 195 07 301 A
- D3: DE 199 01 041 A
- D4: US-A-3 894 917
- D5: ROSSMANN A ET AL: 'MULTIELEMENT STABLE ISOTOPE RATIO ANALYSIS OF GLYCEROL TO DETERMINE ITS ORIGIN IN WINE'

Re Item VIII

Reasoned statement with regard to clarity

claim 2: Claim 2 includes all the features of claim 1. Hence, claim 2 should be reformulated as a claim dependent on claim 1, cf. Rule 29(4) EPC and the Guidelines C-III, 3.5.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1 and 17 is not new in the sense of Article 33(2) PCT.

claim 1:

D1 discloses a method for marking a material (human body), the method comprising the steps of:

- identifying at least one ion comprised in the said material at a concentration level of below 50 ppm in the unmarked state (the natural abundances of isotopes as

- deuterium and ^{18}O are very low but are nevertheless existent)
- selecting a marking composition comprising at least one ion¹ as identified in step 1
 - incorporating the marking composition of step 2 into the said unmarked material (application of labelled water to the body)

wherein the concentration level of the said at least one ion in the marked material is increased in step 3 by at least the factor of 3 as compared to the concentration level of the ion present in the unmarked material.

claim 17:

for reasons analogous to those given for claim 1, the subject-matter of independent claim 17 is not new either. The marking composition of H^{18}O is non-toxic to the human body is disclosed in D1 (D1: p. 2687, left paragraph).

- 2 Various dependent claims do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D1-D5 and the corresponding passages cited in the search report.

- claim 2: see D1
- claim 3: see D1
- claim 9: typical materials to be detected (see D5).
- claim 10: standard technical feature, see D1
- claim 11-13: standard sensors for the detection of inorganic ions (see D4)
- claim 14: trivial feature - p. 17 description
- claims 15-16: the subject-matter is already disclosed by D1 (the expression "field audit analysis" is unclear and hence cannot limit the scope for which protection is sought).

¹ deuterium can exchange in water rapidly with other acidic ion or other protons it is considered as being in an ionic form